

In the claims:

Please amend the claims as follows:

1. (Currently amended): An arrangement comprising a light-emitting power semiconductor device (3) disposed on a substrate structure (4) and comprising a plastic protective body (9), which
- is formed by injection onto said substrate structure (4) and
 - shrouds said power semiconductor device (3) substantially form-fittingly on the sides and top thereof, leaving a light exit region (8) exposed, and comprising an optical waveguide (8) that is coupled to said light-emitting power semiconductor device (3) and that guides the emitted light out of said plastic protective body (9),
- characterized in that
- the region between said light-emitting power semiconductor device (3) and said optical waveguide (8) is filled, at least segmentally, with a transparent plastic material.
2. (Currently amended): The arrangement as recited in claim 1, characterized in that
- filler particles, ~~especially glass particles~~, dispersed in said plastic protective body (9) are present in order to ~~adapt~~ adjust the thermomechanical properties of the material of said plastic protective body to the thermal expansion of said power semiconductor device.
3. (Currently amended): The arrangement as recited in claim 1, characterized in that
- said plastic protective body (9) is made of a substantially opaque plastic material.
4. (Currently amended): The arrangement as recited in claim 1, characterized in that
- said plastic protective body (9) is made of a thermoplast or a duroplast.

5. (Currently amended): The arrangement as recited in claim 1, characterized in that said substrate structure (1) is a singulated part, ~~particularly a stamped part~~, made from a panel-shaped or strip-shaped metal sheet, ~~particularly a lead frame~~.
6. (Currently amended): The arrangement as recited in claim 1, characterized in that said substrate structure (1) is in thermal contact with a coolant, ~~particularly water~~, which flows around or across at least a portion of its surface.
7. (Currently amended): The arrangement as recited in Claim 6, characterized in that said substrate structure (1) is provided with a heat-exchange body comprising microchannels and/or microplates (6).
8. (Currently amended): The arrangement as recited in claim 7, characterized in that said heat-exchange body is disposed in the immediate vicinity of said power semiconductor device (3), on the side of said substrate structure (1) facing away from said power semiconductor device (3).
9. (Currently amended): The arrangement as recited in claim 1, characterized in that said optical waveguide (8) is provided on both of its longitudinal faces with a coating, ~~particularly an SiO₂ coating~~, for beam guidance.
10. (Currently amended): The arrangement as recited in claim 1, characterized in that an optical waveguide structure creating a plurality of individual optical waveguides is formed in said waveguide (8).

11. (Original): The arrangement as recited in claim 10, characterized in that with respect to an individual optical waveguide, the cross-sectional areas of the optical inlet and the optical exit differ in size, and/or, with respect to plural individual optical waveguides, the geometrical arrangement of the cross-sectional areas of the optical inlets is different from the geometrical arrangement of the cross-sectional areas of the exits.
12. (Currently amended): The arrangement as recited in claim 1, characterized in that to effect the optical coupling of said optical waveguide (8) to said light-emitting power semiconductor device (3), a particularly reflective or diffractive lens is provided in the beam path between said power semiconductor device (3) and said optical waveguide (8).
13. (Currently amended): The arrangement as recited in claim 12, characterized in that said lens realized as a cylindrical lens (7).
14. (Previously amended): The arrangement as recited in claim 1, characterized in that said transparent plastic material is silicone.
15. (Currently amended): The arrangement as recited in claim 1, characterized in that said light-emitting power semiconductor device (3) is a semiconductor laser, particularly a semiconductor laser bar.
16. (Currently amended): A method for fabricating an arrangement comprising a light-emitting power semiconductor device,

wherein, in a first step, said light-emitting power semiconductor device (3) is placed against and electrically contacted by a substrate structure (1), and in a second step that can be performed chronologically before or after the first step, an optical waveguide (8) is affixed to said substrate structure (1), and in a third step, said substrate structure (1) with said light-emitting power semiconductor device (3) is injection-coated with a plastic mass forming said a plastic protective body (9), characterized in that in the third step, said optical waveguide (8) is completely shrouded in said plastic protective body (9), and in a fourth step, a light exit surface of said optical waveguide (8) is exposed in the region of the outer periphery of said plastic protective body (9).

17. (Currently amended): The method as recited in claim 16, characterized in that said substrate structure is realized, at least in said first step, as a mounting area in a planar metal sheet (~~lead frame~~), and the separation of the metal sheet into the individual arrangements is effected in a subsequent singulating step.
18. (Currently amended): The method as recited in claim 16, characterized in that as part of the fourth step, a projecting piece (16) of plastic material integrally formed on said plastic protective body is broken off to expose said light exit surface of said optical waveguide (8).
19. (Currently amended): The method as recited in claim 16, characterized in that after said fourth step, the exposed light exit surface of said optical waveguide (8) is polished.

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20. (New): The arrangement as recited in claim 2,
characterized in that
the filler particles are glass particles.
21. (New): The arrangement as recited in claim 5,
characterized in that
said substrate structure (1) is a stamped part.
22. (New): The arrangement as recited in claim 5,
characterized in that
said substrate structure (1) is made from a lead frame.
23. (New): The arrangement as recited in claim 6,
characterized in that
said coolant is water.
24. (New): The arrangement as recited in claim 9,
characterized in that
said coating is a SiO₂ coating.
25. (New): The arrangement as recited in claim 15,
characterized in that
said light-emitting power semiconductor device (3) is a semiconductor laser bar.
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